



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

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Project Title Sand Crabs in Santa Cruz	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this study is to collect reliable data on the distribution of the Pacific Mole Crab (<i>Emeritia analoga</i>) at Seabright State Beach in Santa Cruz County. We will also determine how the seasons affect gender and abundance. We predict that there will be fewer females in the winter and overall larger crabs in the spring and summer.</p> <p>Methods/Materials I. Mark out predetermined 50 meters with measuring tape II. Measure wind speed temperature, cloud cover, tide height with Kestrel and tide book III. Use stovepipe to collect sand by collecting at predetermined depth IV. Filter through screens with water (1/4 and 1/8 inch screens in that order) V. If sand crabs present record and put in Ziplock to freeze for parasite analysis if not repeat steps 6-9 VI. Repeat bimonthly</p> <p>Materials a) Kestrel wind speed/ temp gauge b) 2x1 gallon buckets c) Stovepipe d) 30x1 1/2 foot flag/ markers e) Measuring tapes(10 & 50m) f) Random number chart g) Calipers h) Tide book i) Screens</p> <p>Results We found a total of three sand crabs in October, six in November, two in December, one in January and seven in February. Examining the graphs you can tell there are few sand crabs in the winter months. The weather in February was unseasonably hot, we got a large increase in recruits, meaning that the sand crabs are breeding again. We will continue monitoring for 1 year.</p> <p>Conclusions/Discussion The samples of the Pacific Mole Crab (<i>emirita analoga</i>) we have collected in the past 8 months is starting to match our predictions.</p>	
Summary Statement Monitoring size, sex, and distribution of the Pacific Mole Crab	
Help Received Sample extractor provided by San Lorenzo Valley High School Environmental Science Class	